REMARKS

Applicant's undersigned attorney initially thanks Examiner Burch for the thoroughness of the Office Action.

Claims 1 through 32 have been cancelled without prejudice or disclaimer.

Claims 33 through 49 are presented herein and are pending in this application.

THE SUBJECT INVENTION

The present invention is directed to a dry mode first harmonic mode vibration damper apparatus 20, for damping wind induced first harmonic mode vibrations of a pole P. Such vibrations occur in a fixedly positioned vertical plane that is coextensive with the wind flow direction. Damper apparatus 20 employs two identical main housing components comprising a first housing component half-portion 22 and a second housing component half-portion 24 which are connected together by threaded screws 60 and are mounted on the exterior surface of a pole P. The half-portions 22 and 24 respectively include partial cylinder sleeve surfaces 26 and 26′ which facingly contact and engage the outer surface of pole P so that adjustment of threaded screws 60 clamps the entire device to the pole in a secure manner. Internal positioning panels 38 and 40 and 38′ and 40′ are provided in the housing component half-portions 22 and 24 to define damping weight receiving chambers 42, 44 and 46 in first housing component half-portion 22 and similar dry weight receiving chambers 42′, 44′ and 46′ in second housing component half-

portion 24. Spherical damping weights 48 and 48′ are respectively provided in housing components 22 and 24 with weights 48 and 48′ being isolated in a single weight receiving chamber so that they cannot move from one chamber to an adjacent chamber. The first harmonic mode vibrations occur in a plane parallel to the direction of the wind flow and are damped by reaction of weights 48 and 48′ with the half-portions 22 and 24.

THE PRIOR ART

The Tatsumi *et al.* U.S. Patent No. 4,433,592 differs greatly from the present invention in that it is directed to a device for damping vibration of a rotating object. The device employs a wet system including an annular casing 56 in which spherical weights or bodies 62 made of elastic material such as synthetic resin or natural rubber containing powdered lead oxide and ***working liquid W*** are contained. The elastic synthetic resin or natural rubber containing powdered lead oxide spherical weights are used for noise reduction as discussed in the last paragraph of column 6 of Tatsumi *et al.* Casing 56 is mounted on the interior of power-driven washing machine rotary tub 18 which ***rotates*** about a vertically extending axis as best shown in Figure 6. The purpose of the Tatsumi *et al.* device is to reduce vibrations caused by the centrifugal forces of unbalanced loads in the tub. Annular casing 56 includes an inner wall 56A, a bottom wall 56D and an outer wall 56B, having an inclined lower wall portion 67 as shown in Figure 6. The walls 56A, 56B and 56D define a roughly U-shaped circular channel in which radial partitioning walls 64 are provided to divide chamber 58 into a plurality of compartments 65 which contain spherical weights 62 and operating liquid W as discussed in lines 42 through 62 of column 6 of Tatsumi *et al.*

Spherical weights 62 are immersed in operating liquid W in chamber 58 during low speed rotation of the tub. However, spherical weights 62 and operating liquid W move upwardly on inclined outer wall portion 67, as shown in Figure 6, in response to increased rotational speed of rotary tub18 to pass through the openings 66 in partitioning walls 64 and move into adjacent compartments. Even a casual perusal of Tatsumi *et al.* reveals that it is a markedly different structure for performing totally different functions from the structure and functions of the present invention.

Thus, it is abundantly clear that the Tatsumi *et al.* U.S. Patent No. 4,433,592 is distinctly different in structure and function from the invention disclosed and claimed in this application. These distinctions flow from the fact that Tatsumi *et al.* is for damping constantly rotating vibrations of a ***rotating*** washing machine tub. Such ***rotation*** created vibrations are constantly changing their direction and are markedly different from the first harmonic mode wind created vibrations in a fixedly positioned vertical plane oriented in the direction of the wind flow. There is consequently a total absence of any teachings or suggestions in Tatsumi *et al.* that the disclosed device would be capable of diminishing the non-rotating constant direction wind-induced first harmonic mode vibrations of a pole.

OBJECTION UNDER 37 CFR § 1.98(B)

In response to paragraph 3 of the Office Action, an Information Disclosure Statement is filed concurrently herewith.

OBJECTIONS TO THE DRAWINGS

With respect to paragraph 4 of the Office Action, the drawings were objected to for failure to illustrate structure recited in lines 8 and 9 of claim 1. The newly submitted claims do not include the objected to language, so the drawings consequently do not now require the corrective changes required in paragraph 4 of the Office Action.

Paragraph 5 of the Office Action took the position that because element 20 is described in the specification as an embodiment but appears to be pointed to an object at the top of the "pole" constituted a defect in the drawings under 37 CFR § 1.121(d). It is respectfully pointed out that the sentence in which the objected to language is found in whole reads "The preferred embodiment 20 of the invention comprises a first harmonic mode vibration damper which is mounted on a pole P in an uppermost position thereof as shown in Figure 1." Therefore, the "preferred embodiment 20" and the "first harmonic mode vibration damper" were actually rendered one and the same by the verb "comprises" and Figure 1 was consequently correct as filed. In any event, the aforementioned sentence has been rewritten to move the numerical designator 20 to follow "damper apparatus" so as to make it even more clear that amendment of Figure 1 is not necessary.

Paragraph 6 of the Office Action objected to the drawings for failing to comply with 37 CFR § 1.84(d)(5) because they include reference characters 21, 28′, 32′, 34′, 38′, 39′, 40′ and 50′ which were considered to be "not mentioned in the description". In actuality, the last sentence of page 7 of the specification states, "the numerical designators applied to second housing component half-portion 24 in the drawings correspond to those of first housing component half-portion 22, but are primed for the sake of clarity". It is respectfully submitted that the aforementioned language constitutes an adequate description of the primed numbers listed in paragraph 6. In any event, the Specification has been amended to include a more specific recitation of each of the primed designators listed in paragraph 6 as well as designator "21".

Replacement Drawing Sheets filed herewith effect inclusion of all reference characters recited in the description. Complete conformity with 37 CFR § 1.121(d)(1) is consequently clearly established and the objection to the drawings in paragraph 6 should therefore be withdrawn.

OBJECTION TO THE SPECIFICATION

Regarding paragraph 8 of the Office Action, the Examiner objected to the absence of a period at the end of the last line of page 6. The last line on page 6 has been amended to provide a period and this objection has therefore been obviated and should be withdrawn.

REJECTION UNDER 35 USC § 112

The claim 1 language objected to in paragraph 10 of the Office Action has not been incorporated in the new claims which are submitted to be in full conformity with 35 USC § 112.

REJECTION UNDER 35 USC § 102

Paragraph 12 of the Office Action rejected original claims 1, 2, 5, 7, 8, 9, 13 and 14 under 35 USC § 102(b) as being anticipated by Tatsumi *et al.* All of these claims have been cancelled and replaced with a new set of claims which are submitted to fully distinguish over Tatsumi *et al.* in a patentable manner for a plurality of reasons discussed hereafter. Moreover, the reliance on Section 102 in rejection of the foregoing original claims was incorrect as a matter of law and could not properly be applied to any of the newly submitted claims.

More specifically, paragraph 10 of the Office Action was fundamentally flawed in improperly applying 35 USC § 102 to a ***modification*** of the Tatsumi *et al.* device and ignored the fact that 35 USC § 102 is only applicable when the reference ***anticipates*** the claimed structure. More specifically, the statement "Examiner notes that upper and lower are relative terms and that for examining purposes objects shown in the are of "FIG. 6" are considered to be lower and objects shown in the area of "FIG. 7" are considered to be upper" had the effect of turning Tatsumi *et al.* structure upside down to create a hypothetical structure ***different from the actual structure disclosed in Tatsumi et al.*** The upside down hypothetical structure relied upon in the 35 USC § 102 rejection is not "patented or described" by Tatsumi *et al.* as required by the clear

language of 35 USC § 102 and the rejection of claims under that section was consequently manifestly improper.

In the remarkably similar case of *In re Gordon*, 221 USPQ, page 1125, the Court of Appeals, Federal Circuit, was faced with a rejection of claims based upon the Examiner's turning of a liquid strainer disclosed in French U.S. Patent No. 1,175,948 upside down in order to use the upside down device in rejection of application claims. The court held that such rejection was not proper, where, as here, (1) the reference itself did not teach the upside down version; and (2) the modification would result in an inoperable device. The Court stated:

> The question is not whether a patentable distinction is created by viewing a prior art apparatus from one direction and a claimed apparatus from another, but, rather, whether it would have been obvious from a fair reading of the prior art reference as a whole to turn the prior art apparatus upside down. French teaches a liquid strainer which relies, at least in part, upon the assistance of gravity to separate undesired dirt and water from gasoline and other light oils. Therefore, it is not seen that French would have provided any motivation to one or ordinary skill in the art to employ the French apparatus in an upside down orientation. The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. *See Carl Schenck, A.G. v. Nortron Corp.*, 713 F.2d 782, 787, 218 USPQ 698, 702 (Fed. Cir. 1983) and *In re Sernaker*, 702 F.2d 989, 995-96, 217 USPQ 1, 6-7 (Fed. Cir. 1983), both citing *In re Imperato*, 486 F.2d 585, 587, 179 USPQ 730, 732 (CCPA 1973).
>
> Indeed, if the French apparatus were turned upside down, it would be rendered inoperable for its intended purpose.

It is obvious that Tatsumi *et al.* does not teach the hypothetical upside down device. It is also obvious that the hypothetical upside down device would be ***inoperable*** for the following reasons.

The structure and operation of the device of Tatsumi *et al.* requires that it be oriented as shown in Figure 6 in order to be operable in the manner described therein. More specifically, the spherical weights 62 and operating liquid W ride upwardly on inclined portion 67 as rotation speed of the rotary tub 18 exceeds the resonance rotating rate so as to eliminate unbalance of the tub, as described in column 7, lines 40-52 of Tatsumi *et al.*

A critical aspect of the operation of Tatsumi *et al.* is the fact that increased rotational speed causes operating liquid W and spherical weights 62 to ride upwardly along inclined portions 67 to reach the dotted line position illustrated in Figure 6, which enables movement of weights 62 through openings 66, as discussed in column 7 of Tatsumi *et al.* However, if Tatsumi *et al.* was inverted to an upside down position in the manner proposed by the Examiner, spherical items 62 would automatically be moved by gravity in contact with cover 56C in which position they would remain even if the tub was not being rotated. The upward movement of spherical items 62 and operating liquid W in response to increase in the tub rotation speed would be impossible and lost and Tatsumi *et al.* would be rendered inoperable for its intended purpose by the upside down modification relied upon in the rejection. Thus, the structural orientation illustrated in FIG. 6 ***must be maintained*** in order for the device to function in its intended manner.

It is also noted that the position taken in the paragraph bridging pages 7 and 8 that elements 56C and 56 of Tatsumi *et al.* constitute first and second housing component half-portions was not warranted or correct. In actuality, element 56 of Tatsumi *et al.* is an annular casing and element 56C is an upper wall fitted over the upper end of casing 56. Thus, portions

56 and 56C are totally different structures and neither of which could properly be considered to be a "housing component half-portion" as was done in the 35 USC § 102 rejection.

Additionally, the paragraph bridging pages 6 and 7 of the Office Action is not accurate in stating that Tatsumi *et al.* discloses "a pole vibration damping assembly capable of being mounted on a pole for wind induced pole vibration". This statement is incorrect in that Tatsumi *et al.* does not disclose any capability of damping wind induced pole vibrations, does not disclose any teaching or suggestion that the device could be used for damping pole vibrations and does not teach or suggest how the disclosed device could be mounted on a pole for effecting such vibrations.

REJECTION UNDER 35 USC § 103

Cancelled claims 3, 4, 6, 10, 15, 16, 17 and 18 were rejected under 35 USC §103(a) as being unpatentable over Tatsumi *et al.*, as applied in the 35 USC § 102 rejection, an incorrect contention, that it would have been obvious to substitute spherical metal balls for the synthetic resin or natural rubber spherical bodies 62 of Tatsumi *et al.* Such a substitution is not taught or suggested by Tatsumi *et al.* and would not be obvious since there would be no benefit flowing from substitution of metal balls for the synthetic resin or natural rubber bodies 62. Also, use of metal balls would be detrimental in that it would eliminate the noise reduction function of the synthetic resin or natural rubber bodies 62. Moreover, such a substitution of heavier metal balls would render Tatsumi *et al.* ***inoperable*** for its intended purpose which requires that the spherical bodies be sufficiently lightweight so as to be capable of riding up the inclined portion 67 as

described in lines 56 through 67 of column 7, at which point they move through the opening 66 in the adjacent partitioning wall 64. Metal balls would be too heavy to perform in the foregoing manner when the device operates at normal washing machine speed.

It was also contended with respect to claims 11 and 12 that Kólya *et al.* would make it obvious to coat the "balls" 62 of Tatsumi *et al.* with plastic in order to provide a way of insulating sound. Since items 62 of Tatsumi *et al.* are already formed of synthetic resin or natural rubber ***for reducing noise***, there would be no reason for providing an additional plastic coating and the proposed modification of Tatsumi *et al.* would not be obvious or proper under 35 USC §103 and should not be proposed in rejection of any of the new claims.

New claim 33 distinguishes over Tatsumi *et al.* in reciting "A pole vibration damping assembly mountable on a pole for damping wind induced first harmonic mode pole vibration". Such distinction is made abundantly clear by the title of Tatsumi *et al.*, BALANCER FOR USE IN CENTRIFUGAL ROTARY MACHINE, which accurately reflects the nature and use of the Tatsumi *et al.* device. As noted previously, there is a total absence of any teaching or suggestion in Tatsumi *et al.* that the structure disclosed therein could be mounted on a pole or would be capable of damping wind induced first harmonic mode pole vibration. In fact, the entire description in Tatsumi *et al.* relates to the mounting of the device on the ***interior*** of a rotary tub 18 and there is a ***total absence*** of any discussion supporting the contention that the partial cylindrical sleeve 56A of the patent is "being dimensioned and shaped to fit in a mating manner over an upper end portion of a cylindrical pole" as asserted in the Office Action.

Claim 33 further distinguishes over Tatsumi *et al.* in reciting that the assembly includes "an annular housing formed of a first harmonic mode vibration damper apparatus comprising a first housing component half-portion and a second housing component half-portion and a connection connecting the first housing component half-portion to the second housing component half-portion".

Claim 33 additionally distinguishes over Tatsumi *et al.* in reciting that each of the housing component half-portions include "an inner partial cylinder sleeve surface having a lower portion and a center of curvature and being dimensioned and shaped to fit in a mating manner over, and facing contact with, an upper end portion of a pole having an axis coextensive with the center of curvature of the pole".

Further distinction of claim 33 over Tatsumi *et al.* comprises the recited "outer partial cylinder sleeve positioned outwardly of the inner partial cylinder sleeve and having a lower end portion and a center of curvature that is coextensive with the inner partial cylinder sleeve surface center of curvature".

Claim 33 also distinguishes over Tatsumi *et al.* in reciting "a plurality of partitioning panels extending vertically upwardly from the floor panel and extending between the inner partial cylinder sleeve and the outer partial cylinder sleeve to define damping weight receiving chambers between adjacent partitioning panels and a freely movable damping weight retained in each of the damping weight receiving chambers". It is respectfully pointed out that the spherical members 62 of Tatsumi *et al.* ***are not retained*** in chamber 58 and are free to move through

opening 66 from one such chamber to an adjacent chamber when the tub reaches a sufficient rotational speed as previously discussed in detail.

Therefore, it is respectfully submitted that claim 33 is not anticipated, nor made obvious by Tatsumi *et al.* or the other references and should be allowed.

Claim 34 depends from claim 33 and should be allowed for the same reasons as claim 1 as discussed above.

Claim 35 also depends from claim 33 and should be allowed for the same reasons as claim 33 as discussed above. Moreover, claim 35 additionally provides further distinction over Tatsumi *et al.* in specifying that the damping weights are spherical metal balls in that each spherical body 62 of Tatsumi *et al.* is formed of "elastic material such as synthetic resin or natural rubber containing lead oxide" as described in lines 65 and 66 of column 6.

Claim 36 depends from claim 33 and should be allowed for the same reasons as claim 33. Additionally, claim 36 adds a further limitation that the damping weights are spherical lead balls. There is no teaching in Tatsumi *et al.* or elsewhere in the prior art of the desirability of the substitution of spherical lead balls for synthetic resin or natural rubber spherical bodies 62 and such substitution would render the Tatsumi *et al.* reference inoperable for the same reasons as discussed above with respect to claim 35.

Claim 37 depends from claim 33 and should be allowable for the same reasons as claim 33 with claim 37 providing further distinction over the prior art by indicating that the partitioning panels are planar panels.

Claim 38 depends from claim 33 and should be allowable for the same reasons as claim 33 as discussed above. Further distinction over the Tatsumi *et al.* reference is provided by the recitation that "the planar panels are in substantially perpendicular orientation relative to the floor panel".

Claim 39 depends from claim 33 and should be allowed for the same reasons as claim 33. Additionally, claim 39 further distinguishes over Tatsumi *et al.* and all other prior art in specifying that the damping weights are plastic coated spherical balls.

Claim 40 depends from claim 33 and should be allowed for the same reasons as claim 33 as discussed above. Additional distinction over the Tatsumi *et al.* and other references is provided by claim 40 by the recitation that the damping weights are spherical balls coated with polyurethane.

Claim 41 depends from claim 33 and should be allowed for the same reasons as claim 33. Claim 41 additionally distinguishes over Tatsumi *et al.* and the other prior art in specifying that the first housing component half-portion and the second housing component half-portion are fixedly connected together to cooperatively encircle the cylindrical pole. Additionally, claim 41 further distinguishes in reciting that the housing component half-portions includes a first planar plate extending between a first end portion of the inner partial-cylinder sleeve and a connector lug comprising part of the connection on a first end portion of the outer partial-cylinder sleeve log comprising part of the connection on the first end portion of the outer partial-cylinder sleeve, instructional details that clearly are not disclosed in Tatsumi *et al.* Additionally, further distinction is provided by the recitation of a second planar panel extending between a second end portion of the inner partial-cylinder sleeve and a connector lug comprising part of the connection on a second end portion of the outer partial-cylinder sleeve and threaded metal screws comprising part of the connection connecting the connector lug of the second housing component half-portion to provide a rigid housing structure.

Claim 42 depends from claim 41 and should be allowed for the same reasons as claim 41 as noted above with the recited weights being spherical metal balls adding a further distinction. It is further noted that Tatsumi *et al.* does not teach the desirability of using spherical metal balls in the disclosed device and such use would render the Tatsumi *et al.* device totally inoperable for its intended purpose for the reasons noted above. Therefore, claim 42 should be allowed.

Claim 43 depends from claim 41 and should be allowed for the same reasons as claim 41 as noted above. The modification of Tatsumi *et al.* to use spherical lead balls as added by claim

43 would not be obvious from the teachings of the prior art and would render the Tatsumi *et al.* device inoperable for its intended purpose for the reasons noted above and claim 16 should be consequently be allowed.

Newly submitted claim 44 distinguishes over the prior art in reciting a vibration reducing device mountable on a pole for damping wind induced first harmonic mode vibrations in that none of the prior art discloses a device for the foregoing purpose. Additionally, claim 44 further distinguishes over the prior art in reciting that the vibration reducing device includes an annular array of dry weight receiving chambers shaped and dimensioned to encircle and effect mounting on a pole. The foregoing limitation further distinguishes over the wet chamber device of Tatsumi *et al.* with further distinction flowing from the added recitation of a damping weight in each dry weight receiving chamber. Lastly, additional distinction over the prior art is achieved by the indication that the dry weight receiving chambers are separated by a structure preventing movement of the damping weights from one dry weight receiving chamber to an adjacent dry weight receiving chamber so as to define a clear structural distinction over the Tatsumi *et al.* device.

Claim 45 depends from claim 44 and should be allowed for the same reasons as claim 44. Additional distinction is provided by the recited limitation indicating that the damping weights are spherical balls.

Claim 46 depends from claim 44 and should be allowed for the same reasons as claim 44. Additionally, further distinction is provided by the indication that the damping weights are spherical metal balls.

Claim 47 depends from claim 44 and should be allowed for the same reasons as claim 44. Additional distinction over the prior art is provided by the recitation that the damping weights are spherical lead balls.

Claim 48 depends from claim 44 and should be allowed for the same reasons as claim 44 as noted above. Additional distinction over the prior art is provided by the recitation that the damping weights are plastic coated spherical metal balls.

Claim 49 depends from claim 48 and should be allowed for the same reasons as claim 48 as noted above. Additional distinction is provided by the recitation of that the plastic coating is polyurethane.

CONCLUSION

All formal matters have been complied with and the claims remaining in the application are directed to allowable subject-matter for the reasons noted above.

Passage of this application to issue is therefore urged to be in order and is earnestly solicited.

Respectfully submitted,
JACOBSON HOLMAN PLLC

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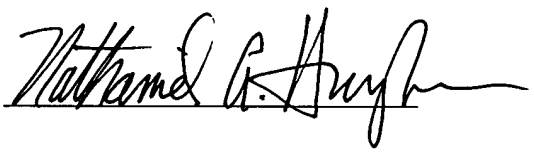
By: 

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AMENDMENTS TO THE DRAWINGS

Attached Replacement Sheet, including Figures 2 and 7 through 10, adds designator 26S to Figure 2, and adds designator 250′ to Figures 9 and 10.

Attached Replacement Sheet, including Figures 3, 4, 5 and 6, adds designators C, 25′, 26S′, 27′, 30′, 36′ and 50′ to Figure 3.

Attached Replacement Sheet, including Figures 11 through 15, changes designator 26 to 26′, changes designator 29 to 27′ and changes designator 30 to 31′, all in Figure 13. Designator 50′ is added to Figures 12 and 15. The lead line from designator 26′ is corrected in Figure 14 and designators 250′ and 30′ are added to Figure 11.

Attached Replacement Sheet, including Figures 16, 17 and 18, adds designators 25′, 26′, 42′, 44′, 46′, 50′, 60, 250 and 250′ to Figure 16. Designators S′ are also added to Figure 17.

Attached Replacement Sheet, including Figures 19 and 20, adds designators 250 and 250′ to Figure 19.

Attachments: Replacement Sheets